

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: PLANTACOTE[®] Top K
 Product No: Plantacote 4M Top K 10-9-19
 Plantacote 6M Top K 10-9-19
 Plantacote 8M Top K 9-9-19
 Plantacote 12M Top K 9-9-18
 Product Use: Plant nutrition, slow release fertilizer
 Restriction of Use: Refer to Section 15

New Zealand Supplier: Horticulture Ltd
 Address: 10 Firth Street
 Drury, 2113

Telephone: +64 9 294 8453
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Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 4 March 2020 v2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: Fertiliser (subsidiary) – HSR002571

Pictograms



Irritant Chronic

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
9.1D	H402	Harmful to aquatic life.	Aquatic Acute 3

Prevention Code	Prevention Statement
P103	Read label before use.
P201	Obtain special instructions before use.

P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Ammonium Nitrate	20-30	6484-52-2
Calcium sulphate	0.5-5	7778-18-9
Disodium tetraborate decahydrate, borax decahydrate	<1	1303-96-4

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.
If on Skin	Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Immediately rinse the mouth with water, then drink a lot of water. Consult the doctor in case of persistent trouble.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	Not applicable.
Inhalation:	Not applicable.
Skin:	Not applicable.
Eyes:	Causes severe eye irritation.
Chronic:	Suspected of damaging fertility or the unborn child.

Treatment: Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from decomposition products	Nitrogen oxides. Ammonia. Phosphorus oxides. Sulphur oxides. Metal oxides.
Suitable Extinguishing media	Flood fire area with water from a distance. Unsuitable: earth, sand, dry chemical powder or foam.
Precautions for firefighters and special protective clothing	Use self-contained breathing apparatus and chemically protective clothing. Do not allow run-off from firefighting to enter drains or water courses.
HAZCHEM CODE	1Z

Section 6. Accidental Release Measures

Evacuate unnecessary personnel. Do not touch or walk on the spilled product. Ventilate spillage area. Wear PPE as detailed in Section 8.

Take up the product mechanically. Sweep or vacuum material when possible and shovel into a waste container.

Disposal of contaminated material as waste according to section 13.

Ensure that the product does not reach the ground-water, water bodies or the drainage system.

Section 7. Handling and Storage

Handling

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Avoid contact with skin, eyes and clothing.
- Do not eat, drink or smoke when using this product.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

Storage

- Keep out of reach of children.
- Store locked up.
- Do not store with: Organic materials. oxidizing materials. Acids. Alkali.
- Store tightly closed in a dry, cool and well-ventilated place.
- Keep only in the original container.
- Keep out of direct sunlight.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Calcium Sulphate (Cas no 778-18-9)	-	10	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the

Product Name: Plantacote Top K
Date of MSDS: 4 March 2020

Prepared by: Technical Compliance Consultants (NZ) Ltd
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Engineering Controls: Ensure adequate ventilation to minimize exposure

Personal Protection Equipment



Eyes	Chemical goggles or safety glasses. EN 166
Skin	Handle in accordance with good industrial hygiene and safety practice
Respiratory	No respiratory protection needed under normal use conditions.
General	After contact with skin, wash immediately and thoroughly with plenty of water.

Section 9 Physical and Chemical Properties

Appearance	Solid
Colour	Beige
Odour	Characteristic
Odour Threshold	Not available
pH (ph1% solution)	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Non flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Density	1 g/cm ³ at 20 °C
Solubilities	Very soluble in water.
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Size	Not available

Section 10. Stability and Reactivity

Stability of Substance	This material is not stable when stored and used as directed.
Hazardous Reactions	No dangerous reactions known under normal conditions of use.
Conditions to Avoid	Water, humidity. metals. Organic Substances.
Incompatible Materials	Acids. Combustible materials. Reducing agents. Organic materials. Alkali. Oxidizing agent.
Hazardous Decomposition Products	No hazardous decomposition products known at room temperature. Thermal decomposition generates : Metal oxides. Sulphur oxides. Phosphorus oxides. Ammonia. Nitrogen oxides.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable. Mixture rules calculation = 7169mg/kg
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Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe eye irritation.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Suspected of damaging fertility or the unborn child.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Ammonium Nitrate (Cas no 6484-52-2)	>2217 mg/kg (rat) (CCID)	> 5000 mg/kg (rat) (OECD 402 method)	> 88,8 mg/l 4h (rat)
Sodium Tetraborate Pentahydrate (Cas no 12179-04-3)	2403mg/kg (rat) (CCID)	-	-
Calcium sulphate (7778-18-9)	>2000mg/kg (rat)	-	-

Section 12. Ecotoxicological Information

HSNO Classes: 9.1D = Toxic to aquatic life.

Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Ammonium nitrate (AN) (6484-52-2)

LC50 fish 1	447 mg/l 48h
EC50 Daphnia 1	490 mg/l IUCLID 5
Calcium sulphate (7778-18-9)	
LC50 fish 1	3278 mg/l IUCLID 5

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Empty containers should be taken for recycle, recovery or waste in accordance with local regulation. Triple rinse and dispose according to Local Regulations.

Precautions or methods to avoid: Do not discharge into drains or rivers.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Section 15 Regulatory Information

EPA Approval Code: Fertiliser (subsidiary) – HSR002571

HSNO Classification: 6.4A, 6.8B, 9.1D

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	10 000kg (9.1D)
Emergency Response Plan	10 000kg (9.1D)
Secondary Containment	10 000kg (9.1D)
Restriction of Use	None

Section 16 Other Information**Glossary**

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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